

ABSTRACT OF THE DISCLOSURE

A holder (30) that holds a specimen (100) is disposed outside a vacuum chamber (50) with a light transmission window (52a). A light detection unit and a light radiation unit having a terahertz light generator (6) are fixed on a base (53) disposed inside the vacuum chamber. The light radiation unit irradiates terahertz pulse light onto the specimen (100) placed outside the vacuum chamber via the light transmission window (52a) and the resulting specimen light from the specimen (100) is received at the light detection unit via the light transmission window (52a). The base (53) in the vacuum chamber and the holder (30) disposed outside the vacuum chamber are connected via a connecting member (54a) passing displaceably through a barrier wall of a vacuum chamber (50) with airtight sealing so as to fix the relative position of the holder to the base.